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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/491,661	01/27/2000	Jason L. Gridley	29423/209	8880

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EXAMINER

FISCHER, JUSTIN R

ART UNIT

PAPER NUMBER

1733

DATE MAILED: 06/19/2002

15

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/491,661

Applicant(s)

GRIDLEY ET AL.

Examiner

Justin R Fischer

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 March 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-20 and 22-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-20 and 22-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 22 March 2002 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 9,10. 6) ☐ Other: _____

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DETAILED ACTION

1. Claims 1-13 and 21 are cancelled per Amendment A on March 22, 2002.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 23, 25, and 26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 23, 25, and 26, applicant requires in claim 23 that "a plurality of tread rollers for mounting a roll of tire tread thereto" be provided. It is unclear, however, exactly which rollers this language is referring and the specification fails to provide a description of "tread rollers". Furthermore, it is unclear how the "tread rollers" can function to "mount a roll of tread thereto". Applicant is asked to clarify the "tread roller" structure without the introduction of new matter.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 14, 19, 22-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taylor (US 4,096,008, of record). Taylor is directed to a method of applying a tread material comprising measuring a circumference of a tire casing, electronically

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communicating the circumference of the tire to a tread dispenser (mold/cutter assembly), dispensing a precise length of tread based on the tire circumference, and cutting the tire tread (Column 3, Lines 37-44). The reference, however, is silent as to any adjusting step prior to the cutting of the length of tread. In any event, it would have been obvious to one of ordinary skill in the art at the time of the invention to adjust the dispensed length, if necessary, when using a repeating tread pattern in order to obtain an aesthetic property and eliminate any imbalance that would contribute to vibrations. It is clearly evident that upon producing a dispensed length, the leading and prevailing edges of the said dispensed length would be either visually or automatically determinable, it being recognized that the matching of ends to produce an aesthetic property is desired. Furthermore, it is well known and conventional in the tire industry to either manually or automatically place a length of tread onto a rotating drum. Therefore, one of ordinary skill in the art at the time of the invention would have been motivated to adjust the dispensed length of tread, either manually or automatically, in order to effectively match the ends of the tread pattern and eliminate any possible tread unevenness.

With respect to claim 22, applicant defines a "tread cutting apparatus". Taylor discloses an apparatus comprising a lineal measurement device and a tread dispenser including a tread cutter for cutting the tread to define the length of tread. The additional portions of the claim define the method in which various components of the apparatus communicate with each other in order to obtain a desired length of tread. It is clearly evident that these limitations do further define the structure of the claimed apparatus.

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Furthermore, the apparatus of Taylor is capable of functioning in the manner disclosed by the claimed invention.

Regarding claims 23-26, as best depicted in Figure 4, Taylor discloses the dispensing of tread material from a roll and subsequent conveying of said tread material by a series of rollers. With specific respect to claim 23, as previously stated in the 112, 2nd Paragraph rejection above, it is unclear what is meant by "tread rollers". Taylor does, however, depict a series of rollers that assist in the conveying of a length of tread material. Furthermore, rollers and additional conveying means are conventionally used in a variety of locations in tire application systems in order to assist in the movement of a length of ply material and provide any desired tension or compression.

As per claim 27, applicant has stated that a "curved track" eliminates any substantial bending or stretching caused by abrupt changes in the path of travel (Page 9, Lines 2-6). Taylor depicts a flat conveying system or track that guides the length of tread. It is evident that the track outlined by Taylor does not contain any abrupt changes in the path of travel and thus does not contribute to any additional bending or stretching. Additionally, the specific "curved track" described by the applicant is an obvious variant over the track illustrated by Taylor and would be beneficial if the point of application needed to be different from the level at which the tread was dispensed due to the design of the additional apparatus. Thus, Taylor describes a track system that operates as an equivalent alternative to the claimed track system in that it eliminates substantial bending and stretching, it being well known and conventional to employ curved tracks in tread application systems.

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6. Claims 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taylor as applied to claim 14 above and further in view of Currie (US 5,882,457, of record). As previously stated, Taylor discloses a method of applying tread material based on the circumference of the tire. The reference, however, is silent with respect to the use of a gripping means to apply the tread material. In any event, gripping means are conventionally used in the application of tread materials to accurately position and center said tread with respect to the axial direction of the tire casing and ultimately provide the desired splice. For example, Currie is directed to a retreading apparatus in which a gripping means is activated by a sensor, whereby the leading end and trailing ends are clamped or gripped and subsequently positioned onto the tire casing for the reasons detailed above. As such, it would have been obvious to one of ordinary skill in the art at the time of the invention to include a gripping or clamping mechanism to accurately position the tread material, with respect to the axial direction, on the tire casing, as set forth below.

Regarding claims 15-18, while Taylor is silent with respect to any gripping means, such a method is extremely well known and conventional in the tire industry. Gripping or clamping mechanisms are extensively used to accurately place the tread material onto the tire casing (i.e. material is centered on tire casing). For example, Currie describes a retreading system in which a tread material passes a sensor, which in turn initiates the clamping of the leading and trailing edges. Although there is no "stop" apparatus, it is the examiner's position that the stop and sensing means of Currie can be viewed as functional equivalents in the art since they both initiate a first clamping of the leading edge. It is additionally noted that both the claimed "stop" apparatus and

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the sensing means described by Currie are conventionally used to provide a signal or some additional initiation activity in various industries. Thus, such a design would have been readily appreciated by one of ordinary skill in the art at the time of the invention.

7. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Taylor. Applicant requires that the tire tread be cut to an operator determined length. As previously stated, a lineal measurement device is used in Taylor to communicate the circumferential length of the tire casing to the tread dispensing assembly, whereby the tread is severed accordingly. Although the reference is silent as to cutting the tire tread to an operator determined length, it is extremely well known and conventional in the tread art to include both manual and automated systems to control the length of tread placed on the tire casing. In particular, a manual system allows an operator to receive the dimensions of the tire casing and adjust the length of tread to account for any desired tread compression or elongation (difficult to accomplish with automated system due to variation between tire sizes). As such, one of ordinary skill in the art at the time of the invention would have found it obvious to include a manual control system in the method of Taylor.

8. Claims 28-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taylor as applied to claim 22 above in view of Okuyama (US 4,804,426, of record). Taylor, as previously mentioned, discloses a tread cutting apparatus comprising a measurement device and a tread dispenser in accordance to the limitations of the claimed invention. The reference, however, is silent as to the use of a gripping or clamping mechanism composed of a first and second clamp. In any event, clamping mechanisms are extremely well known and conventional in the tire industry in order to

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accurately position a desired length of ply material onto a tire casing. For example, in describing conventional building methods, Okuyama describes the clamping of a front and rear portion of a rubber sheet and subsequent conveying or propelling of said rubber sheet towards the tire drum (Column 1, Lines 30-40). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to include a gripping or clamping mechanism, as suggested by Okuyama, in the apparatus of Taylor, as set forth below.

Regarding claims 28-33, Okuyama provides one example to evidence the conventional use of gripping or clamping mechanisms in the application of ply materials in tires. Although the reference fails to specifically describe the particulars of the gripping mechanism, the limitations provided by these claims define the conventional makeup of such a mechanism. In particular, these systems are specifically designed with a series of encoders or sensors in order to locate the front and rear ends of the ply material. Furthermore, the clamping mechanism is conventionally designed to grip the ply material and subsequently convey it along a desired path in order to accurately position said ply material on the tire casing. Also, it is well known to provide either a sensor or a "stop" apparatus to provide the location of the front edge, at which time the front gripping piece is contacted with the front edge of the ply material. Thus, claims 28-33 define a gripping mechanism that is conventionally used in the application of ply materials in the tire industry. Lastly, claims 31 and 33 are directed to the method in which various components of the apparatus are related and not to the structure of the claimed apparatus. As such, these limitations do not further define the structural makeup of the claimed apparatus.

Response to Arguments

9. Applicant's arguments with respect to claims 14-20 and 22-33 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

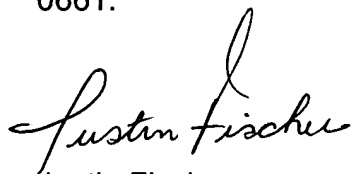
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Justin R Fischer** whose telephone number is **(703) 605-4397**. The examiner can normally be reached on M-F (7:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Ball can be reached on (703) 308-2058. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



Justin Fischer

June 16, 2002



Michael W. Ball
Supervisory Patent Examiner
Technology Center 1700